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In the

Supreme Court of the United States.

OCTOBER TERM, 1945.

No. 297

RUSSELL BOX COMPANY,
Petitioner,

v.

GRANT PAPER BOX COMPANY,
Respondent.

PETITION FOR WRIT OF CERTIORARI
AND
BRIEF IN SUPPORT OF MOTION.

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OCTOBER TERM, 1945.

No.

RUSSELL BOX COMPANY,
PETITIONER,
v.
GRANT PAPER BOX COMPANY,
RESPONDENT.

PETITION FOR WRIT OF CERTIORARI.

To the Honorable Chief Justice and Associate Justices of the Supreme Court of the United States:

Your petitioner, Russell Box Company, defendant, respectfully prays for a writ of certiorari to the Circuit Court of Appeals for the First Circuit to review a judgment of that Court entered on April 17, 1946.

SUMMARY AND SHORT STATEMENT OF THE MATTER INVOLVED.

This action was brought by respondent in the District Court of Massachusetts to enjoin infringement of claim 3* of Letters Patent to Dreymann No. 2,031,036, dated Febru-

* 3. "A container wall for the packaging of material including a sheet or film composed substantially of an amorphous petroleum wax of an apparent melting-point of 120°–170° F., carrying a suspended colloid, and two sheets of fibrous material, the sheet or film of said wax intercalated between the sheets of fibrous material and constituting a film of adhesive uniting the whole."

ary 18, 1936. The District Court held claim 3 not infringed but did not pass on its validity (R. 14). On appeal the Circuit Court of Appeals for the First Circuit (R. 465) found the patent invalid, affirming the decree of the District Court, but on rehearing reversed itself and held the claim valid and infringed (R. 487).

The alleged invention consisted in substituting amorphous petroleum wax containing a suspended colloid for paraffin wax as the adhesive to stick together two sheets of paperboard to make paper boxes used to contain food and the like and protect them from moisture.

It was old to stick two plies of paper or paperboard together with a flexible layer of any of various waxes,[1] and to make boxes from such laminated sheets.[2] Paraffin wax and "other mineral, animal or vegetable waxes" and "oxidized petroleum residuum"[4] had been used for the purpose. Colloids such as rubber,[5] resin,[6] and ester gum[7] had been mixed with waxes to improve their properties. Also it was old to waterproof various articles with a colloidal suspension of ester gum in "petrolatum wax", another name for amorphous petroleum wax.[8]

Dreymann substituted amorphous petroleum wax containing a foreign (added) colloid for the paraffin wax and rubber (a colloid) used by Johnson,[9] or for the "oxidized petro-

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[1] Johnson, No. 229,045 (R. 438), Beecher, No. 1,936,375 (R. 448). Fietsch, No. 1,269,918 (R. 456).

[2] Fietsch, No. 1,269,918 (R. 456).

[3] Beecher, No. 1,936,375 (R. 448).

[4] Fietsch, No. 1,269,918 (R. 456).

[5] Johnson, No. 229,045 (R. 438).

[6] MacLaren, No. 1,905,923 (R. 445).

[7] Earsall, No. 1,968,907 (R. 451); Rose, No. 2,036,301 (R. 453), filed April 12, 1933, see the claims and p. 1, col. 2, lines 1–3.

[8] Hoch, No. 1,780,917 (R. 442).

[9] Johnson, No. 1,936,375 (R. 438).

leum residue" used by Fietsch.[10] He followed Beecher's suggestion to use "other mineral, animal or vegetable waxes".[11] Dreymann's wax compound performed no new function, produced no different co-operation and was coupled with no new process. The only advantages gained were in the degree of flexibility and moisture-proofness, and were due entirely to the nature of the substituted material.

Amorphous petroleum wax came on the market in about 1929 (R. 85). It is moisture and waterproof, non-brittle, intensely sticky, tacky, gummy and adhesive (R. 471). These properties were well known. Such waxes contain natural colloids (R. 395–401). Dreymann, the patentee, did not know this and added a foreign colloid to wax which did not contain it originally.

Petitioner (defendant) bought in the open market amorphous petroleum wax containing an inherent resinous colloid, and used this wax to laminate paperboard for paper boxes (R. 471).

The Court of Appeals held claim 3 valid and infringed, and thus decided that it amounted to invention to substitute one known wax for another in making moisture-proof boxes. Disregarding a file-wrapper estoppel, it expanded the claim to cover commercial waxes containing natural colloids.

Therefore, the decision of the Court of Appeals upholds a monopoly in the use of a known material existing in nature when substituted for a similar material in an old combination; it upholds invention where the only novelty lies in the substitution of one material for another without difference of function or method.

The Court of Appeals came to its erroneous decision

(1) Because it failed to follow the applicable rule of *Hotchkiss* v. *Greenwood,* 11 How. 248, and

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[10] Fietsch, No. 1,269,918 (R. 456).

[11] Beecher, No. 1,936,375 (R. 448).

(2) Because it misinterpreted *Smith* v. *Goodyear Dental Vulcanite Co.*, 93 U.S. 484–486, decided in 1876.

In *Hotchkiss* v. *Greenwood, supra,* this Court decided that the substitution of one well known material for another as an element of an old combination does not "of itself" constitute patentable invention, even though it is "better and cheaper" and "better adapted to the purpose". In *Smith* v. *Goodyear, supra,* this Court ruled that invention was present where, *in addition* to the substitution of materials, there was a "new contrivance" and a new process. In the case at bar the Court of Appeals for the First Circuit overlooked the distinction between these cases. It failed to perceive that in substituting a compounded wax for an uncompounded wax there was not, in addition, any new function, new co-operation or contrivance and no new process; and therefore, that the case did not fall within the decision in *Smith* v. *Goodyear,* and conflicts with the rule of *Hotchkiss* v. *Greenwood.*

Also, **there is a conflict of opinion** between the First and Second Circuits on the one hand and the Third and Seventh Circuits on the other hand as to what rule of law governs patentable invention where one old material has been substituted for another.

The First and Second Circuits interpret the decisions of this Court to mean that the substitution of one material for another *of itself* may be an inventive act.

United Shoe Machinery Corp. v. *E. H. Ferree Co.,**
64 F. (2d) 101 (C.C.A. 2).
Grant v. *Russell,* 154 F. (2d) 729 (C.C.A. 1).

The Third and Seventh Circuits interpret the decisions of this Court to mean that, *of itself,* the substitution of one

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* In this case a petition for certiorari was *granted* by this Court at the Oct. Term 1933, No. 1257, 290 U.S. 614. It raised precisely the question raised by the case at bar, but the case was dismissed by agreement of counsel and never argued or decided.

material for another is not an inventive act, but that something more than substitution, for instance, "a new process or contrivance", co-operation or relationship is required.

See *Fowler* v. *Honorbilt Products*, 131 F. (2d) 153 (C.C.A. 3).

Lafferty Mfg. Co. v. *Acme Ry. Signals & Mfg. Co.*, 138 F. 729, 730 (C.C.A. 7).

Angier v. *Nehring Elec. Works*, 45 F. (2d) 354, (C.C.A. 7).

This Court has never resolved the conflict of law arising from varying interpretations of its decision in *Smith* v. *Goodyear* and of its dicta in that and subsequent cases. During the seventy years since the decision in *Smith* v. *Goodyear*, the whole aspect of industry has changed. The progress of the arts will be seriously impeded and the purpose of the constitutional provision for the grant of patents defeated if a valid patent may be obtained each time a useful substitution of one material for another is made.

The decision of the Circuit Court of Appeals for the First Circuit also misinterpreted and is in conflict with the decision of this Court in *Sinclair* v. *Carroll Co. Inc.* v. *Interchemical Corp.*, 325 U.S. 327.

The preservation and distribution of foods and other products in the present emergency should not be handicapped for any period of time however short by a patent monopoly, unless the patent on which that monopoly rests is clearly a rightful one under the patent statutes and the decisions of this Court.

JURISDICTION.

(1) This is a suit arising under the Patent Laws of the United States, Judicial Code, Sec. 24 (7), (28 U.S.C. Sec. 41 (7)).

(2) The jurisdiction of this Court is invoked under Section 240 (a) of the Judicial Code, as amended by the Act of February 13, 1925 (28 U.S.C. Sec. 347).

(3) The date of the judgment which petitioner seeks to have reviewed is April 17, 1946.

(4) Cases believed to sustain the jurisdiction are:

Fruit Growers Inc. v. *Brogdex Co.*, 283 U.S. 1; *DeForest Radio Co.* v. *Gen. Elec. Co.*, 283 U.S. 664; *Schriber Co.* v. *Cleveland Trust Co.*, 311 U.S. 211; *Carbice Corp.* v. *Am. Patents Corp.*, 282 U.S. 27.

QUESTIONS RAISED BY THE CASE.

1. Does the substitution of one material for another in an old combination constitute a patentable invention, when no new contrivance, method or relationship is involved, and, where an improved result is attributable only to the well known properties inherent in the material?

2. Can substitution of materials by itself constitute invention if there is an increase in efficiency and a saving in operation, but no new contrivance, method or relationship?

3. Did it constitute patentable invention to substitute amorphous petroleum wax containing a colloid for paraffin (Beecher) or oxidized petroleum residuum (Fietsch) or paraffin and rubber (Johnson) as the adhesive by which the two paper layers of a laminated paper container are stuck together, the properties of amorphous petroleum wax with respect to adhesiveness, flexibility and moisture-vapor proofness being well known?

4. Did the Circuit Court of Appeals, in adjudging claim 3 to be valid and in appraising the rights of the public misinterpret and misapply the principles governing inven-

tion and the respective rights of the patentees and the public, enunciated by this Court in *Hotchkiss* v. *Greenwood, supra, Smith* v. *Goodyear Dental Vulcanite Co., supra,* and *Sinclair-Carroll Co.* v. *Interchemical Corp., supra?*

REASONS RELIED ON FOR THE ALLOWANCE OF THE WRIT.

1. Because the conflict of decision between the First Circuit on the one hand and this Court and other circuits on the other hand should be resolved before even greater confusion results and to the end that there may be uniformity of decision.

2. The decision of the Circuit Court of Appeals for the First Circuit will put in the hands of the respondent a monopoly of moisture-proof paper boxes and wrappings laminated with amorphous petroleum wax,—a monopoly which is far broader than is justified by a mere improvement in the adhesive.

3. The public interest in the right to use commercially available amorphous petroleum wax carrying a natural suspended colloid for the preservation of food demands freedom from any monopoly not clearly sanctioned by the applicable decisions of this Court.

4. Because the public interest requires that freedom to substitute one material for another and to use whatever material is best suited for the purpose be not abridged and the patent law be not used "as a dam to divert natural changes and evolutionary progress in the arts into the laterals of monopoly."*

5. Because the decision of the Circuit Court of Appeals for the First Circuit is probably in conflict with the applicable decision of this Court in *Sinclair & Carroll* v. *Interchemical Corp., supra.*

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* *Evr-Klean Seat Pad Co.* v. *Firestone Tire & Rubber Co.,* 118 F. (2d) 600.

PRAYER:

Wherefore your petitioner respectfully prays that a writ of certiorari be issued out of and under the seal of this Honorable Court directed to the Circuit Court of Appeals for the First Circuit commanding that Court to certify and to send to this Court for its reviewing and determination, on a day certain to be therein named, a full and complete transcript of the record and all proceedings in the case numbered and entitled on its docket No. 4044 *Grant Paper Box Company, Plaintiff-Appellant* v. *Russell Box Company, Defendant-Appellee,* that the said decree of the Circuit Court of Appeals for the First Circuit may be reviewed by this Honorable Court, and that your petitioner may have such other and further relief in the premises as to this Honorable Court may seem meet and just.

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BRIEF IN SUPPORT OF MOTION.

OPINIONS OF THE COURTS BELOW.

The opinion of the District Court (Findings of Fact, Conclusions of Law and Memorandum Modifying) is reported in 61 U.S.P.Q. 209. See also R. 14–18.

The original opinion of the Court of Appeals is reported in 151 F. (2d) 886, R. 465 and the opinion on Rehearing reversing its original judgment is reported at 154 F. (2d) 729, R. 487–490.

STATEMENT.

The facts are believed to be sufficiently stated in the petition.

SPECIFICATION OF ERRORS.

If the Writ of Certiorari is allowed Petitioner will urge that the Circuit Court of Appeals for the First Circuit erred:

(1) In holding that a substitution of materials in and of itself amounted to patentable invention.

(2) In not adjudging claim 3 of the patent to Dreymann No. 2,031,036, invalid in view of *Hotchkiss* v. *Greenwood, supra,* and *Sinclair & Carroll Inc.* v. *Interchemical Corp., supra.*

(3) In not adjudging claim 3 of the patent in suit invalid because of the prior patents and publications contained in the record and particularly the patents to Johnson No. 229,045; Beecher No. 1,936,375; Fietsch No. 1,269,918; Hoch No. 1,780,917; MacLaren No. 1,905,923; Rose No. 2,036,301; Pearsall No. 1,968,907, and the article entitled "The Petroleum Waxes" by Buchler & Graves, R. 395.

(4) In not adjudging claim 3 of the patent in suit invalid because the alleged invention of claim 3 amounts only to the substitution of an old and well-known wax for paraffin and wax mixtures as the adhesive layer of a laminated paper sheet used for a container wall.

(5) In not adjudging that, in view of limitations in the

specification and estoppel by cancellation of claims, claim 3 is limited to the addition of a foreign colloid to amorphous petroleum wax, and in adjudging that said claim 3 is infringed by a container wall having an intermediate layer composed of a blend of two waxes containing only their inherent natural colloids.

ARGUMENT.

Point I.

THE DECISION OF THE CIRCUIT COURT OF APPEALS FOR THE FIRST CIRCUIT IN THE CASE AT BAR IS IN CONFLICT WITH THE DECISION OF THIS COURT IN HOTCHKISS v. GREENWOOD THAT SUBSTITUTION OF MATERIALS OF ITSELF DOES NOT CONSTITUTE INVENTION. THE CASE AT BAR SQUARELY RAISES THE QUESTION.

1. Dreymann's Alleged Invention Was Only the Substitution of One Wax for Another in an Old Combination.

Claim 3 is essentially for a container wall made of two plies of paper stuck together with wax carrying a suspended colloid. Wax had been used to stick together "two sheets of fibrous material" (Johnson, R. 438; Beecher, R. 449; and Fietsch, R. 456); a laminated sheet containing a wax adhesive had been made into a container (Fietsch, R. 456); amorphous petroleum wax was known and it had been recognized that it contained a colloidal material (Buchler & Graves, R. 395); its adhesive and moisture-proofing properties were known (MacLaren, R. 445 and Pearsall, R. 382); amorphous petroleum wax was known to be tough and flexible (Pearsall, R. 451). Ordinary amorphous wax was known to have a wide range of melting points. Colloids had been added to wax (rubber by Johnson and Rose; rosin by MacLaren, and ester gum by Pearsall).

No novelty resided in the combination of wax and paper to form a laminated, flexible, moisture-vapor proof wall,

nor in substituting a compounded wax for an uncompounded one as the adhesive with which to stick together two sheets of paper to make such a wall. The container wall defined in the claim differed from the old container walls if at all only in degree of moisture proofness and flexibility. There was no novelty outside of the substitution—no new function, method or contrivance. The elements of the combination had no new interrelation or cooperation. The container was better simply because the wax used was better. Consequently, the question is squarely presented as to whether the substitution of material, without more, constitutes invention.

2. What This Court Has Decided as to Substitution of Materials.

In *Hotchkiss* v. *Greenwood,* 11 How. 248, the alleged invention was the substitution of a porcelain door-knob for one of wood or metal. This Court said:

> ". . . the novelty consisted in the substitution of the clay knob in the place of one made of metal or wood, as the case might be." (p. 265)
>
> . . . . . .
>
> The improvement consists in the superiority of the material, and which is not new, over that previously employed in making the knob. But this, *of itself,** can never be made the subject of a patent."

This decision, therefore, lays down the general rule that, where the novelty consists in substitution of material, this *"of itself"* is not invention.

This decision was followed in 1876 by *Smith* v. *Goodyear Dental Vulcanite Co.,* 93 U.S. 486. In this case the patentee (Dr. Cummings) substituted rubber for metal in the plates of artificial teeth and vulcanized the rubber so that it held

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* Italics ours throughout.

the individual teeth tightly and sealed the joints about them. There was both a new process and a new cooperation or interaction of the materials. The Court said that the new process was "as much a part of the invention as are the materials of which the product is composed" (p. 493). Accordingly, the Court held that "what Cummings accomplished was more than a substitution of one material for another—that it was in truth invention" (p. 495). Therefore, the *Smith* case like the *Hotchkiss* case holds that *something more* than the substitution of one material for another is necessary if the patent is to be sustained. Each case decides that substitution of materials *per se* is not invention, and that novelty must be found in something outside of and beyond the substitution. In the *Hotchkiss* case, the something was wanting; in the *Smith* case, it was the new process, the new contrivance, the new relationship.

No case decided by this Court holds that substitution of materials "of itself", however beneficial, amounts to invention. Either the patents have been held invalid[1] or invention has been found in something outside of and beyond the substitution.[2]

3. The Confusing Dicta of This Court.

In a case, *Hicks* v. *Kelsey*, 18 Wall. 670, previous to the cases under discussion this Court had said:

> "The use of one material instead of another in constructing a known machine is, in most cases, so obvi-

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[1] *Hicks* v. *Kelsey*, 18 Wall. 670, 673.
Collar Co. v. *Van Dusen*, 90 U.S. (23 Wall.) 530, 563.
Terhune v. *Phillips*, 99 U.S. 592.
Slawson v. *R.R. Co.*, 107 U.S. 649, 653.
Gardner v. *Herz*, 118 U.S. 180, 192.
Brown v. *District of Columbia*, 130 U.S. 87, 99.
Florsheim v. *Schilling*, 137 U.S. 64.

[2] *Potts* v. *Creager*, 155 U.S. 597.
Magowan v. *New York*, 141 U.S. 332.

> ously a matter of mere mechanical judgment, and not of invention, that it cannot be called an invention, unless some new and useful result, an increase of efficiency, or a decided saving in the operation, is clearly attained." (p. 673)

In *Smith* v. *Goodyear,* this Court quoted this dictum and since that time other courts have taken it as stating an exception to the rule of the *Hotchkiss* case, *viz.*—that substitution may constitute invention if it is not obviously a matter of mere mechanical skill, and provides some new and useful result, some increase of efficiency or some saving. But this Court has never so decided and has never receded from its position in *Hotchkiss* v. *Greenwood.* Contrary to general belief it has not established an exception to the rule of that case.

The remark in *Smith* v. *Goodyear* that the product was a thing different in kind rather than in degree has also been taken out of its context to mean something which we believe was not intended by this Court. In the *Smith* case, the product was different in kind because it was a "new contrivance", because of the novel cooperation and interrelationship of its elements resulting from the novel process by which it was made. But the Court of Appeals fell into error and used the expression "different in kind" to describe something that is different only because the substitution of a material makes it so.

We submit that this Court should make clear the distinction between its decisions in *Hotchkiss* v. *Greenwood* and *Smith* v. *Goodyear.*

Point II.

THERE IS CONFLICT OF LAW BETWEEN THE FIRST AND SECOND CIRCUITS ON THE ONE HAND AND THE THIRD AND SEVENTH CIRCUITS ON THE OTHER AS TO THE RULE OF LAW RELATING TO SUBSTITUTION OF MATERIALS.

1. The Rule in the Third and Seventh Circuits.

The Third and Seventh Circuits have followed *Hotchkiss* v. *Greenwood* in requiring a showing of novelty over and beyond the substitution of materials. The nature of the conflict is illustrated by the recent decision of the Third Circuit Court of Appeals in *Fowler* v. *Honorbilt Products,* 131 F. (2d) 153 in which the court held that it did not amount to invention to substitute combed sisal for cotton for padding in upholstery. After discussing the rule of *Hotchkiss* v. *Greenwood* and the corollary of *Smith* v. *Goodyear* the Court said:

> "The pad of the patent in suit is constructed in exactly the same way that pads of fibers other than sisal had been made for many years. The better article derived from the use of sisal was not the result of any *new contrivance or process* described by the patent. It was due alone to the fact that the peculiar properties and characteristics of sisal rendered it superior for padding purposes in upholstery—a fact which had long been widely known and understood. The mere adaptation of sisal to the particular manufacture could not, therefore, be the subject of a patent." (pp. 156–7)

In *Lafferty Mfg. Co. et al.* v. *Acme Ry. Signal & Mfg. Co.,* 138 F. 739–40, 1905, the Seventh Circuit held that the substitution of paper for tin or lead for the cap of a railroad torpedo was not invention although the existing torpedoes had been superseded.

In *Angier et al.* v. *Nehring Electrical Works,* 45 F. (2d) 354, 1930, the Seventh Circuit also held that it did not constitute invention to use crepe paper instead of flat paper or burlap for wrapping tires, notwithstanding the fact that crepe paper had important advantages and, as was alleged in the bill of complaint and therefore was assumed on motion to dismiss, had replaced flat paper and burlap almost completely. In that case the Court said:

> "Surely the quality of invention does not reside in the employment of an old element in a connection where it exhibits only those uses, functions and qualities which were long theretofore recognized and understood." (p. 355)

In summary, in the Third and Seventh Circuits, as in this Court, a case of "mere" substitution is one in which the only novelty lies in the material, and invention is held lacking in the absence of some new contrivance, relationship of elements, or new process.

2. The Rule in the First and Second Circuits.

The First and Second Circuits, following the dicta of this Court in *Hicks* v. *Kelsey, supra,* and *Smith* v. *Goodyear, supra,* but not the decisions, hold that there is invention when the novelty resides solely in the substitution, without any new contrivance, process or cooperation of elements, if the improvement is an important one commercially, resulting in savings or improved results.

In *United Shoe Machinery Corp.* v. *E. H. Ferree Co.,** 64 F. (2d) 101, the sole novelty consisted in the substitution of aluminum alloy for iron in the arm of a machine for cut-

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* In this case a petition for certiorari was *granted* but the case was never argued or decided. See footnote on page 4, *supra.*

ting out parts of shoes with the result that the operation of the machine was less fatiguing to the workman. The Court held that this amounted to invention and said:

> "But it is said that this was a mere substitution of material and therefore does not rise to the dignity of invention . . . The use of one known material instead of another in constructing a known machine is in most cases so obvious as a matter of mere mechanical judgment as not to be inventive thought, *but* it can amount to invention if some new and useful result or increase in efficiency and decided saving in the operation is clearly obtained." (p. 103)

In *Smokador Mfg. Co.* v. *Tubular Products Co.*, 31 F. (2d) 255, C.C.A. 2, the sole novelty consisted in the substitution of glass for metal in the bottom of a large cigar ash stand, so that the attendant would know when to empty it. The Second Circuit held that this was an invention, on the ground that the apprehension of the advantages "involved more than the work of the routine mind".

And in *Grant* v. *Russell,* 154 F. (2d) 729, the case at bar, the First Circuit on rehearing has adopted the same line of reasoning as the Second Circuit in *United Shoe* v. *Ferree, supra,* and held that the substitution of a colloid-bearing amorphous petroleum wax for paraffin wax as a bonding agent for paperboard was an invention. After acknowledging that the patentee's wax was "a commercially available compound having known characteristics" (R. 488), the Court held that *Hotchkiss* v. *Greenwood* did not control notwithstanding the fact that the only novelty was the substitution of one wax for another, and said that the case was governed by *Smith* v. *Goodyear.* It thought Dreymann's alleged invention was for a product different in kind rather than in degree because it had greater moisture-proofness and flexibility. The Court failed to realize that in *Smith* v. *Goodyear* this Court found a "difference in kind" only

where the product had a new cooperation of elements and was made by a new process.

The Court below also said that Dr. Cummings in the *Goodyear* case had "done more than simply to use hard rubber", and that likewise Dreymann had done more than simply to substitute one known material for another. But the "something more" in Dreymann's case was in the words of the Court of Appeals[1] "to produce a thin flexible moisture-vapor-proof box board which could be written or printed upon and which could be folded to make small boxes or cartons without losing its highly desirable moisture-vapor-proof characteristic". This describes a container wall in words practically paraphrasing Fietsch—one better in degree than either Beecher's[2] or Fietsch's[3] but not a new contrivance, nor a container wall made by a new method.

The Court of Appeals went wrong in its reasoning because it did not realize that in the *Goodyear* case the "something more" resulted from the new contrivance and process. The Court did not appreciate that a product is not different in kind under the rule of *Smith* v. *Goodyear* unless some new contrivance or process provides an improved result not limited to the superiority of the substituted material itself.

In each of the last three cases[4] the patentee merely applied the inherent and well recognized qualities of an element to a particular use, yet the First and Second Circuits found the improvement to constitute a patentable invention, thus going squarely contrary to the Third and Seventh Circuits and far beyond anything which this Court has held to constitute invention.

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[1] Court of Appeals Opinion, R. p. 489.

[2] Beecher patent No. 1,936,375, R. 448.

[3] Fietsch patent No. 1,269,918, R. 456.

[4] *United Shoe* v. *Ferree; Smokador* v. *Tubular;* and *Grant* v. *Russell.*

Therefore, we submit, that the Third and Seventh Circuits are squarely in conflict with the First and Second Circuits.

We find no basis in the facts for reconciling these conflicting decisions. The substitution of sisal for cotton[1]; paper for tin[2]; crepe paper for flat paper[3]; aluminum for iron or steel[4]; glass for metal[5] and colloid-carrying amorphous wax for paraffin wax[6] cannot be considered as presenting different states of fact. In every case the facts were essentially the same but the result was "new" only to the extent that the new material made it so. The conflicting Courts of Appeals were obviously guided by totally different legal standards of what constitutes invention when one well known material is substituted for another. They differed as to whether "of itself" a substitution of material might be invention. The misunderstandings as to the principle to be applied and the consequent conflict will continue until this Court clarifies the situation.

Thus there is complete confusion among the circuits. While paying lip service to the rule of *Hotchkiss* v. *Greenwood*, some courts use the dictum of *Smith* v. *Goodyear* to justify holding that substitution of materials of itself amounts to an invention. When cases involving substitution of materials arise, they are often treated as if only questions of fact were raised and no search is made for the true rule of law to be applied. Thus the confusion continues and will continue until corrected by this Court.

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[1] *Fowler* v. *Honorbilt*.

[2] *Lafferty* v. *Acme*.

[3] *Angier* v. *Nehring*.

[4] *United Shoe* v. *Ferree*.

[5] *Smokador* v. *Tubular*.

[6] *Grant* v. *Russell*.

Point III.

THE LAW AS TO THE SUBSTITUTION OF MATERIALS HAS NOT KEPT PACE WITH DECISIONS OF THIS COURT ON WHAT CONSTITUTES PATENTABLE INVENTION.

Within the last ten years this Court has recognized that the rising level of mechanical and scientific skill demands a progressively higher standard of invention.[1] In line with this growth of the law, this Court has also condemned the extension of a monopoly on an old combination resulting from the improvement of one of its elements.[2] In the *Bassick* case, Gullborg substituted a new connector or fitting in an old lubricating system; in the case at bar Dreymann substituted a different wax as the adhesive in Fietsch's old laminated container wall. The Court should rule that substituting one known material for another in an otherwise old combination stands on the same footing as substituting an improved element and is open to the same fundamental condemnation. The law on substitution of materials has not progressed—rather it has retrograded, and it remains for this Court to bring the law up to the same high standard which it requires in other cases where patentability is in question.

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[1] *Cuno Engineering Corp.* v. *The Automatic Devices Corp.*, 314 U.S. 84.

[2] *Bassick* v. *Hollingshead*, 298 U.S. 415; see also *Lincoln Engineering Co.* v. *Stewart Warner*, 303 U.S. 545 for an identical situation.

Point IV.

AN IMPORTANT QUESTION OF PUBLIC POLICY IS INVOLVED, NAMELY—THE RIGHT OF THE PUBLIC TO PROFIT BY THE DEVELOPMENT OF NEW MATERIALS AND NOT BE HAMPERED BY PATENTS ON THE MERE SUBSTITUTION OF ONE MATERIAL FOR ANOTHER.

During the seventy years which have elapsed since this Court has made an authoritative statement on "substitution of materials", the question has assumed great public importance because of the quickened pace of scientific and industrial development. During this time more than twenty-five new elements of matter have been discovered and thousands of new compositions have been originated. Hundreds of new metal alloys have been discovered. Practically all, if not the entire, development of synthetic condensation products such as Bakelite, viscose and synthetic rubber has taken place. Innumerable products derived from the distillation and synthesis of petroleum have been put on the market. Each new material has given the public a new tool to work with and has been followed by an ever widening list of uses.

Freedom in the choice of materials is essential to industrial development. The wise rule laid down by this Court in *Hotchkiss* v. *Greenwood, supra,* that making a machine "of materials better adapted to the purpose for which it is used than the materials of which the old one is constructed" cannot "entitle the manufacturer to a patent" has contributed materially to industrial development. To grant a patent each time a new material supplants an old one for a particular use will retard and not "promote the progress of science and useful arts".

We respectfully submit that this Court should reaffirm its wise rule against repatenting old combinations by substitutions of material and put an end to the insidious relaxation which the decisions of the First and Second Circuits are bringing about.

The value of our patent system depends on a nice adjustment between public and private rights. While it is for the public interest that inventors should be confirmed in "the exclusive right" "for limited times" to "their respective discoveries", it is equally important that patentees should not be allowed to trench upon the public domain by claiming as inventions improvements which are the result of judicious selection of the material to be used and, hence, should be the property of the public.

Point V.

THE PUBLIC IMPORTANCE OF PRESERVING THE PRESENT LIMITED FOOD SUPPLIES DEMANDS AN IMMEDIATE REVIEW OF THE MONOPOLY IN QUESTION.

The effect of the decision of the first Circuit is to keep the public from using a particular natural wax as the adhesive for the walls of laminated containers. The present shortage of foods will be further aggravated if they cannot be packed in containers made with every commercially available form of wax.[1] The public should be free to use whatever is best to keep foodstuffs from deterioration. We submit that these are cogent reasons for granting the writ.

Exceptional circumstances affecting the public have been deemed sufficient to warrant granting the writ of certiorari, even in the absence of conflicting decisions as to the validity of the patent involved.[2] Such exceptional circumstances are not restricted to those arising from facts of any particular character. The power of the Court is "coextensive with all

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[1] It is expected that during the year 1946, 42,400,000 lbs. of amorphous petroleum wax will be used in lamination by the paper industry. (Affidavit of John C. Dean, printed in appendix.)

[2] *DeForest Radio Co.* v. *Gen. Elec. Co.*, 283 U.S. 664;
Schriber Co. v. *Cleveland Trust Co.*, 311 U.S. 211;
Leitch Mfg. Co. v. *Barber Co.*, 302 U.S. 458, 461;
United Carbon Co. et al. v. *Binney & Smith Co.* U.S. ;
Sinclair & Carroll v. *Interchemical Corp.*, 325 U.S. 327.

possible necessities". *Forsyth* v. *Hammond*, 166 U.S. 503, 514.

CONCLUSION.

We respectfully submit that the public interest requires that the question of invention by substitution of materials should be again considered and that the standard of invention with respect to this matter, which has been lowered by the decisions of the First and Second Circuits, be restored to its previous level by a decision of this Court which will speak in unmistakable terms.

Respectfully submitted,

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350 Tremont Building, Boston, Mass.

July, 1946.

IN THE SUPREME COURT OF THE UNITED STATES.

GRANT PAPER BOX COMPANY,
Respondent (Plaintiff),
v.
RUSSELL PAPER BOX COMPANY,
Petitioner (Defendant).

AFFIDAVIT OF JOHN C. DEAN.

STATE OF NEW YORK,
COUNTY OF NEW YORK, ss.

JOHN C. DEAN, being duly sworn, deposes and says:

I am 36 years of age, a resident of Douglaston, New York and am employed by Socony-Vacuum Oil Company, Inc., 26 Broadway, New York 4, New York, as Manager of Process Products Division of Lubricating Department, in connection with the sale of "process products" meaning, generally, oil products used in the manufacturing and/or processing of other industries and among other products, specifically having to do with "micro-crystalline wax" or "amorphous" or "petrolatum waxes", these being various names applied to waxy products of petroleum refining derived from crude oil and having a small or micro-crystalline form, melting points ranging from 140°F. to 175°F. and viscosities (seconds, Saybolt-Universal) of about 70 seconds at 210°F.

Under instructions from my superiors, and immediately after the cessation of hostilities in 1945, I made a survey of post-war micro-crystalline wax requirements to ascertain the total amount of micro-crystalline waxes likely to be required in this country in the immediate future and as a guide for my company in its manufacturing and sales operations. In the course of making this survey, I had representatives of the company interview customers and non-customers who were present and prospective users of wax over the entire country. On the basis of their reports, I made the following estimates.

Total amount of micro-crystalline wax likely to be used for all purposes in the year 1946....89,400,000 lbs.

Amount likely to be used in lamination by the paper industry in 1946.....42,400,000 lbs.

I am aware that this estimate, due to the way in which data were collected, probably contains some duplication which cannot be ascertained.

In my opinion, the figures given above, even with suspected inaccuracy are not materially too high.

Business arrangements of my company with respect to micro-crystalline waxes will be based upon the above estimate.

JOHN C. DEAN.

Sworn to and subscribed before me this fifth day of June, 1946.

EDITH LAFFERTY,
Notary Public. [SEAL]

Edith Lafferty
Notary Public Kings County
Kings Co. Clk's No. 574, Reg. No. 447-L-7
N.Y. Co. Clk's No. 639, Reg. No. 644-L-7
Commission Expires March 30, 1947

In the

Supreme Court of the United States.

OCTOBER TERM, 1945.

No. 297.

RUSSELL BOX COMPANY, PETITIONER,

v.

GRANT PAPER BOX COMPANY, RESPONDENT.

REPLY BRIEF FOR PETITIONER.

Respondent objects to the grant of the writ chiefly on three grounds: (1) that the case involves only questions of fact; (2) that there is no conflict of law either with the decisions of this Court or with other Circuit Courts of Appeals; and (3) that no question of public importance is involved.

The issue is not, as respondent asserts, merely one of fact, and the question raised is not primarily whether Dreymann exercised more ingenuity than the man skilled in the art. The important questions, which require a conclusive answer by the Court, are:

1. Is a substitution of one material for another "of itself" without more, a patentable invention as a matter of law?

2. Is a combination of elements patentable when the combination is new only in the sense that it has been improved by substituting a better material for a poorer one?

Respondent's brief also raises the question—to what extent is invention a question of law or one of fact.

On the answers to these questions hang the right of the public to benefit from the development of new materials; and, more particularly, the right of the public to use an

article of commerce (amorphous petroleum wax) for a particular purpose without the imposition of a private tax on its use.

Although respondent's brief is full of charges of "misleading" mis-statements of fact, avoidance of issues and the alleged fictiousness of the conflict of decision, respondent nowhere contradicts petitioner's statements. Respondent only adds certain subordinate "facts" and relies on Dreymann's ignorance of commercial waxes to show that he used more than the skill of his calling and solved a problem. *Nothing said by respondent in magnifying the effort required or results achieved, overcomes the obvious truth that all that Dreymann did was to stick together two pieces of paper with a different kind of known wax.*

The following are thought to be the fundamental errors of respondent's brief.

1. Respondent mistakenly assumes that patentable invention is always a pure question of fact, whereas it is a mixed question of fact and law.

It is for this Court, in construing the Constitution and the patent statutes, to declare as a matter of law what constitutes *patentable* invention. The evaluation of conflicting testimony and the subordinate facts is for the trier of fact, but the trier of fact must be guided by the legal rules as to what may and what may not be patented. This Court made a clear statement that patentable invention is a question of law in *Mahn* v. *Harwood,* 112 U.S. 354, 358. Nothing said in the majority opinion in *Goodyear* v. *Ray O Vac,* 321 U.S. 275 contradicts this view.* Courts often say that invention

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* Compare the decisions by the First Circuit Court of Appeals in *Hanovia* v. *Butterick,* 127 F. (2d) 888, and *Lincoln Stores Inc.* v. *Nashua Mfg. Co.* 70 U.S.P.Q. 254, (not yet reported elsewhere) in which the court first said that invention was a mixed question of law and fact and then, in view of *Goodyear* v. *Ray O Vac,* refused to follow *Mahn* v. *Harwood.*

is a question of fact because the question actually raised depends on disputed facts rather than on the question of what may legally amount to invention under the statute. The question here, as to whether or not substitution *per se* is patentable, is solely a question of law.

2. Respondent says in effect (p. 3) that there is no conflict of opinion because the facts of the cases which are said to conflict are not the same.

This is wrong because in each of the conflicting cases the state of facts was essentially the same but the cases were decided by the application of different rules of law. There is no conflict over the rule of law that "mere" substitution is unpatentable; but there is a conflict over what is legally "mere" substitution.

In each of the decided cases referred to on pages 14–18 of the petition, the alleged invention was a change in the material of one element of an old combination.

Respondent attempts to reconcile the cited decisions. It says sisal for cotton[1], crepe paper for plain paper[2], iron for wood[3], paper for tin[4] are all mere obvious substitutions but on the other hand it says that glass for metal[5], and aluminum alloy for iron[6] are "something more than mere substitutions". Respondent says the last was a revolutionary suggestion. (Brief, page 13).

In each of these cases the change of material had pro-

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[1] *Fowler* v. *Honorbilt Products,* 131 F2 153 (CCA 3).

[2] *Angier* v. *Nehring Elec. Works,* 45 F2 354 (CCA 7).

[3] *Hotchkiss* v. *Greenwood,* 11 How. 248.

[4] *Lafferty Mfg. Co.* v. *Acme Ry. Signal & Mfg. Co.,* 138 F 729 (CCA 7).

[5] *Smokador Mfg. Co.* v. *Tubular Products Co.,* 31 F2 255 (CCA 2).

[6] *United Shoe* v. *E. H. Ferree Co.,* 64 F2 101 (CCA 2).

duced important benefits to the public and had been adopted by it and by the defendant. In each case the question for decision was: Did it, of itself, amount to invention to substitute the better material for the poorer in the otherwise old combination. Yet in the first three cases the courts held that the change did not amount to invention, while in the last three cases the courts reached the opposite conclusion. This difference in conclusion has arisen, not because the facts of the cases were different, but because the courts have differed as to the rule of law to be applied. That some of the Circuits have not always been consistent in their rulings only emphasizes the confusion which exists as to the applicable rule of law.[1]

The rule of the First and Second Circuits is stated in the Ferree case in the following words:

> ". . . it can amount to invention if some *new and useful result or increase of efficiency and decided saving* in the operation is clearly obtained". (*United Shoe Machinery Corp.* v. *E. H. Ferree,* 64 F. (2d) 101–103),

while the rule of the Third and Seventh Circuits is stated in the Fowler case as follows:

> ". . . it is not invention to substitute superior for inferior material . . . even in cases where the substitution was both new and useful and the increase in utility exceedingly great. . . . But in order for the substitution of material to rise to the dignity of invention the substitution must produce a *new mode of operation or result in a new function or property.*" 131 F. (2d) 153.

Obviously the guiding legal principles adopted by the Third and Seventh Circuits are not the same as those of the

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[1] The decisions in the Third Circuit are not consistent. The rule in that Circuit has changed. *Compare Fowler* v. *Honorbilt,* 131 F (2d) 153, with the earlier decision in *Allen Filter Co.* v. *Star Metal Co.,* 40 F (2d) 252.

First and Second, and there is a conflict of decision which makes the outcome of each case depend on the forum and not on the facts.

Which of the two rules of law is the correct one?

We submit that this Court should resolve this conflict.

3. Respondent asserts that Dreymann made a new combination of elements when in fact he repatented an old one.

To petitioner's statement that paper laminated with wax is an old combination, respondent replied that paper laminated with a *particular* wax is a new combination. If respondent is correct, then Gulborg[1] produced "a new" combination when he improved the fitting in the old combination of pump, connecting conduit, coupler and fitting. In that case this Court declared the patent invalid. The fallacy in respondent's argument is evident. Like Gulborg, Dreymann has repatented an old combination even if he contributed a specific improvement in one of its elements. At most he taught only the addition of a foreign colloid to wax. Now he seeks to prevent the use of old commercial waxes containing natural colloids. Such a monopoly is greater than any contribution to the art which Dreymann may have made and is offensive to the spirit of the Constitutional provision which was intended to further the progress of science and the useful arts.

4. Respondent argues that Dreymann made a new contrivance because of a "new relationship of elements", and that the result was different in kind. The argument is unsound.

Feitsch (patent No. 1,269,918, Rec. p. 456) made a laminated container wall for cracker cartons from two pieces of paper stuck together with oxidized petroleum residuum.[2]

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[1] *Bassick* v. *Hollingshead*, 298 U.S. 415–426.

[2] This residuum is either asphalt or wax according to the crude petroleum base from which it is made. R. 272.

Fietsch said that his wall was thin, flexible and moisture-proof, and could be printed on (R. 458, lines 20–36). Dreymann, the patentee in the case at bar, stuck together two pieces of paper with amorphous petroleum wax to which he had added a colloid. The only difference between Fietsch's and Dreymann's container walls lay in the material used to stick the pieces of paper together. If there was a difference in result, it was only in the degree of flexibility and moisture-proofness. Such differences are differences in degree, not in kind.

Dreymann modified his wax by adding a foreign colloid, not realizing that there were commercially available amorphous petroleum waxes, the use of which is now charged to infringe, which contained naturally a sufficient amount of resinous colloid to give him the results he was seeking. Respondent argues that the addition of colloid made a "new relationship of elements or a new contrivance". This is not so because the relationship of adhesive (wax or asphalt) and paper was old, having been described by Fietsch. There was no new interaction between the wax and the paper. Any difference was due to the known inherent qualities of the wax. Accordingly, we submit that Dreymann's product was not different in kind within the meaning of this Court in *Smith* v. *Goodyear*. Dr. Cummings' dental plate was different in kind because the process of vulcanization made the plate and the inserted teeth a unitary structure. If Dreymann's laminated wall is better in kind because of the substituted wax, then the cushion of the Fowler case and the torpedo of the Lafferty case were likewise different in kind from the structures of the prior art.

The Public Importance of this Case.

This is not the ordinary patent case in which the consequences of the decision are of importance only to the parties for two reasons:

1. The decision results in the imposition of a tax on a staple article of commerce used for protecting foods. Drey-

mann was not the first to teach the public to use containers made of paper and wax for preserving foods, but he seeks as great a reward as though he were. Hundreds of box manufacturers throughout the country will be required to pay tribute to Dreymann for the privilege of making Fietsch's old container with the use of ordinary commercial amorphous petroleum wax. Though Dreymann only taught the *addition* of more colloid, he will get a monopoly on a substantial section of the food-box industry.

2. The great benefits of research in providing almost numberless substitutes should not be kept from the public at large and diverted "into the laterals of monopoly".

The questions raised by this case are of even greater importance to the public today than they were when this Court granted certiorari in the Ferree case which raised the same questions.[1] The rules relating to substitution of materials have not been restated by this Court for seventy years but at that time materials were fewer in number and knowledge of the natural properties of materials was less. Today, due to diligent research, we know vastly more about natural things and have synthesized things undreamed of even twenty years ago. *The law as to substitution of materials has developed a new importance to the people.*

The exclusive right to use materials for particular purposes should not be handed over to individuals except in cases where invention is clear. Accordingly, we again urge that, if a patent may be granted each time that one material replaces another with better results, the "progress of science and useful arts" will be hampered, and not "promoted" as provided by the Constitution.

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[1] "2. Whether the substitution of one old material for another old material is invention in cases where the improvement claimed is attributable only to the well-known properties inherent in the material, and not to the combination or interaction of the part with other parts and where the improvement is the result of judgment and skill in the selection of the particular material?" (Ferree petition, p. 4).

We submit that the questions raised by the case at bar should now be decided[1], and that the rules of law as to substitution of materials be stated once and for all so that unjustifiable monopolies shall not continue to levy tribute on the public.

Respectfully submitted,

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GEORGE P. DIKE,
GEORGE P. TOWLE, JR.,
RODERICK W. HOAG,
of Counsel.

BOSTON, MASS., September 10, 1946.

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[1] The need of a clear cut statement on the questions of law raised by the case at bar is emphasized by the decision of the Circuit Court of Appeals for the First Circuit on July 19, 1946, in *Lincoln Stores, Inc.* v. *Nashua Mfg. Co.*, 70 U.S.P.Q. 254 in which the majority of that court held that the substitution of staple rayon fibers for wool fibers in blankets was an invention, while Judge Woodbury dissented on the ground that the difference in result was only a difference in degree and not in kind.

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In the

Supreme Court of the United States.

OCTOBER TERM, 1946.

No. 297.

RUSSELL BOX COMPANY, PETITIONER,

v.

GRANT PAPER BOX COMPANY, RESPONDENT.

BRIEF FOR RESPONDENT IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI.

PRELIMINARY STATEMENT.

If one were to accept the statements of the petition, it would appear that Dreymann merely substituted "one wax for another" for its "known properties" and did something as obvious, uninventive and unimportant as substituting porcelain for wood in a doorknob. The salient facts are carefully avoided in the petition and the picture presented does not bear scrutiny.

The sole issue presented by the petition is that of patentable invention.* The test of patentable invention is whether

* Petitioner states (pp. 9–10, par. 5) that if the petition is allowed it will urge that the Court of Appeals erred as to a filewrapper estoppel contention discussed by that court in its first opinion (R. pp. 472, 473). But the petition, (pp. 6, 7) does not include this as a question raised or relied upon for allowance of the writ, and does not discuss it. We therefore see no occasion to discuss this question here.

or not, under all the facts and circumstances, the subject matter displays "more ingenuity . . . than the work of a mechanic skilled in the art" (*Sinclair Co.* v. *Interchemical Corp.*, 325 U.S. 327, 330). "The question whether an improvement requires mere mechanical skill or the exercise of the faculty of invention, is one of fact" (*Thomson Co.* v. *Ford Motor Co.*, 265 U.S. 445, 446). In the present case the finding of fact was reached by the Court of Appeals for the First Circuit after unusually careful and thorough consideration, involving two full hearings.

The District Court did not pass on the issue of invention but went off on a contention of non-infringement by alleged file-wrapper estoppel (R. p. 18). The Court of Appeals in its original opinion (R. p. 465) reversed the District Court on this question, but, believing the case to be governed by the opinion of this Court in the *Sinclair* case, held the patent invalid. The *Sinclair* decision had come down subsequent to the submission of the case to the Court of Appeals.

Respondent (Grant Co.) petitioned for rehearing,* contending that the basis for invalidity in the *Sinclair* case, prior knowledge, was not present in this case, and that the controlling fact situation in the two cases was different in material respects. The Court of Appeals invited written arguments, and after considering them granted the petition (R. p. 487). The case was again fully argued and briefed and the Court of Appeals then held (R. p. 487) that the petition for rehearing was well taken and reversed its original decision, holding claim 3 of the Dreymann patent, the sole claim in issue, valid and infringed.

Except for the unusual consideration given by the Court of Appeals, this is an ordinary patent case with no conflict of decisions between Courts of Appeals and no "special and important reasons" for granting the writ.

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* For Petition for Rehearing see R. p. 476 *et seq.*

Petitioner attempts to procure a further* consideration of this issue of fact by presenting to this Court a petition which disregards the Court of Appeals' correction of error as to prior knowledge on rehearing and carefully avoids any reference to the salient and controlling facts which, as found by the court, distinguish this case from the *Sinclair* case and from those cases wherein, as stated in *Hotchkiss* v. *Greenwood,* 11 How. 248, 266, the substitution is "formal, and destitute of ingenuity or invention".

Petitioner nowhere attempts to show wherein the Court of Appeals was not warranted in finding the true facts indicative of invention.

Petitioner would further conjure up an alleged conflict in rule of law between different circuits by selecting some cases which on different facts reach opposite results, while excluding from consideration cases in the same circuits which, on other facts, reach other conclusions. The basis of the argument is unsound and the alleged conflict is purely fictitious.

The case involves no matter of public importance. Petitioner's effort to find public importance by associating the Dreymann patent with the present food shortage (Pet. p. 21) is rather fantastic.

We turn to the facts.

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* Four times already non-patentable substitution has been urged against Dreymann without effect. The Patent Office rejected on this ground and became satisfied when the facts were presented (Ex. K, R. pp. 405, 419, 425–430). The contention was urged before the District Court which went off on another point and was twice argued to the Court of Appeals without success.

THE ART PRIOR TO DREYMANN.

The petition implies (p. 2 and elsewhere) that prior to Dreymann the art was getting along satisfactorily with existing moisture-vapor proof laminated carton material,* by the use of paraffine and other waxes, and the best that can be said for Dreymann is that he made a slight improvement with just another wax.

The art had long sought ** a satisfactory moisture-vapor proof laminated carton wall for the preservation of food products and the like, but apparently without success. Petitioner never undertook to produce a single sample of any prior art product and there is no evidence that there was ever a successful lamination of paper with any wax prior to Dreymann, or that the products of any of the prior patents could be used commercially.

As we shall presently see, successful lamination involves many factors and obscure problems and far transcends that of merely sticking two sheets of paper or cardboard with some more or less waterproof wax or other agent. The petition cites paraffine as the standard of comparison, but paraffine absorbs into the paper, which makes it impractical for most uses. The prior patentee, Beecher (Appendix, *infra,* p. 21) much relied upon by petitioner, could not prevent such penetration by paraffine and other waxes without using a special non-absorbent glassine paper, which, however, "is very thin . . . not suitable for boxes,

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* The matter of moisture-vapor proof lamination is to be distinguished from that of ordinary waterproof coating, wherein the coating must be non-sticky and penetration is unimportant. Also waterproofing is "something quite different" from prevention of moisture-vapor transfer (R. p. 89). A material may be waterproof and hold water indefinitely, while moisture-vapor will pass through it quite readily (R. p. 89).

** See Johnson No. 229,045 (R. p. 439) granted in 1880 (for further statement as to Johnson see Appendix, *infra,* p. 21).

only for wrapping", for such products as potato chips, etc. (R. p. 467). Indeed, paraffine will not even "stick properly" in lamination (see statement of petitioner's engineer, Sidebottom, R. p. 353).

So far as appears, the only allegedly moisture-vapor proof carton wall that was used commercially prior to Dreymann was an asphalt laminated board (R. pp. 63, 33) called caddy board, put out by one of the larger producers, Robert Gair Co. (R. p. 63), which was the "best moisture proof board" known prior to Dreymann (R. p. 63). But this caddy board was thick, heavy and usable only for large shipping containers, as found by the Court of Appeals (R. p. 467). And its moisture-vapor proof properties as compared with Dreymann were comparatively low (*infra, p.* 8; also Ex. 9, R. pp. 368–9).

Dreymann "overcame the various disadvantages" of the prior art materials previously described or used (R. p. 467), and his advance over Gair's asphalt board, the best the art knew, is striking, as we shall presently see.

We believe no further analysis of the prior art is necessary. Petitioner's analysis is misleading, and the Court of Appeals dismissed the prior patented art as of no importance (R. p. 467; see also footnote, R. p. 488). If the Court is further interested in the prior patents, see Appendix, *infra,* p. 21.

DREYMANN'S INVENTION.

Dreymann, a highly trained chemist (R. p. 466), in 1932 approached respondent, a local box manufacturer of Pittsburgh, with an idea for producing a highly moisture-vapor proof laminated product, suitable for small folding boxes (R. p. 466). Respondent recognized the commercial advantage of such a product, equipped a laboratory for Dreymann, and supplied the necessary venture capital, about $60,000 (R. p. 44). Dreymann's idea was to use as a laminating agent "molten resin, plasticized" (R. p. 120), and his experiments at first proceeded along that line. He had

in the laboratory for use in sealing jars, some commercial amorphous petroleum wax,* which later test showed to contain a native resinous colloid content of about 5% (R. pp. 141; 180–181).

One day, Dreymann dropped some of the commercial amorphous petroleum wax in a melted state on a table, and he noticed a "peculiary behavior of the wax" (R. p. 121). The commercial wax with its trivial resinous colloidal content would not do for laminating. As the Court of Appeals found, it "was almost instantly soaked up and so did not provide an adhesive film, and, in addition, discolored the paper . . . and could not be printed upon" (R. p. 470). Its recognized characteristics for its then prevailing uses made it appear no more adaptable for laminating than rubber or the other waxes. But the "peculiar behavior", found by Dreymann to be due to the presence of some colloid, was fortunately noted by a fertile mind and "patient and skillful scientific research and experimentation" (R. p. 474) lead to important discoveries and the solution of the problem.

The Court of Appeals stated the matter well (R. p. 470):

> "But he [Dreymann] noted that such an amorphous wax as it cooled did not pass almost immediately from a liquid to a solid state, as paraffin does which becomes a firm solid when only two degrees below its melting point, but instead passed from a liquid into a semi-solid or plastic state in which it was very sticky, and then solidified at a temperature approximately five degrees below its melting point. Dreymann realized that this characteristic of the wax was important for laminating purposes so he set about to develop it, and this he found he could do by blending the wax with various resinous colloidal substances foreign to petroleum. In this way he prolonged the plastic stage of

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* This wax had been on the market since 1924 or 1925 (R. pp. 183; 219). Previously it had been largely burned as a waste product (R. pp. 258; 469).

the cooling process, the stage during which the wax was neither a liquid nor a solid and was very sticky, over the time required for the wax to drop about 25 degrees below its melting point. In other words, he found that a resinous colloid in suspension in an amorphous petroleum wax delayed its solidification and gave it increased "tackiness". And this made it suitable for laminating paper, because when the wax, at slightly above its melting point, is spread in a film on a cooler sheet of paper it at once gels (becomes a semisolid, or plastic) and in this condition does not penetrate the paper enough to cause discoloration or to make the paper greasy but instead penetrates the paper only enough to adhere to it, and then remains sticky long enough to permit another sheet of paper to be superimposed, thereby bonding the two sheets firmly and permanently together."

The Circuit Court of Appeals further found (p. 474):

"Dreymann may not be a genius, but nevertheless his mental process in devising the laminated paper described in his patent was inventive. He was aware of the problems inherent in making a relatively thin, moisture-vapor proof, flexible boxboard, and he found a solution for these problems by patient and skillful scientific research and experimentation. Moreover, he made a substantial contribution to the progress of his art as the commercial success of his product and its acceptance by a substantial part of the industry testify."

By providing a substantial gel forming colloidal content (several formulas are given in the patent, R. p. 360) in this particular wax, within a specific range of melting temperature, surprising and unexpected results were discovered, which solved the problem. When in the critical condition, the wax has unique properties. It can be spread in a hot molten state (like hot oil) onto a thin sheet of paper or

cardboard, *but it does not penetrate or soak into the paper*• and does not quickly harden—it forms a non-penetrating gel which continues over a considerable temperature drop below the melting point. In this condition, *it has excessive "tackiness"*, and not only supplies a *"permanent bond"* when the second sheet is laid on, but remains as a *film* or barrier, moisture-vapor resistant to an astonishing degree. As the specification states (R. p. 359, col. 2, l. 10–12), Dreymann discovered a relation between "adhesive power" and "viscosity at elevated temperatures", and, moreover, he found how to put that discovery to use. In lamination the results are new and most valuable. The fragile wax film, in this condition, by this increase in viscosity, becomes adequate not only to stick the sheets together, but to supply a "permanent bond" (R. p. 470)•• and also supplies *an intercalated non-penetrating film or barrier* which is pliable *and though only 1/1000 of an inch thick* (R. p. 123) *is uniform* (no pinholes, R. p. 123) *and 1400% more moisture-vapor proof than asphalt board* (R. p. 63), *the best the art knew prior to Dreymann* (*supra*, p. 5).•••

• All emphasis in this brief is ours.

•• Mere sticking is not enough—the bond must be "permanent" regardless of temperature conditions. Petitioner's engineer, Sidebottom who had worked with paraffine for thirty years (R. p. 353) said but he did not think "paraffine would stick properly . . . simply because it does not have the characteristics of this wax" (R. p. 353). It would not "be a commercial product" (R. p. 354). See also the testimony of Sidebottom that the gel on cooling for a period between the solid and liquid phases is essential to petitioner's laminating operation (R. p. 353). Sidebottom also testified to the importance of a "film" as well as a bond (R. p. 357), as defined in claim 3.

••• As might be expected, Dreymann's new product was highly successful commercially, "due to the intrinsic merit of the product and not to advertising or the plaintiff's business methods (R. p. 467). Respondent has freely granted licenses (R. p. 45) and at the time of trial, November 1943, 60% of the boxboard of this type was produced under the Dreymann patent (R. p. 474).

As to the result, the Court of Appeals found that it can be said of Dreymann as of Cummings, in *Smith* v. *Goodyear,* 93 U.S. 486, that the result of his teaching "was a new product differing from all that preceded it, not merely in degree of usefulness and excellence, but differing in kind, having new uses and new properties" (R. pp. 488–489).

NO PRIOR KNOWLEDGE.

THE SINCLAIR CASE.

Petitioner felt obliged to refer to the *Sinclair* case and asserted (p. 7) as a reason for allowance of the writ that the present decision is "probably in conflict with the applicable decision" in the *Sinclair* case. But it is notable that petitioner nowhere undertakes to advance any reason, analysis or argument in support of this bare assertion, and nowhere undertakes to show wherein the Court of Appeals was in error in its final opinion.

Our petition for rehearing (R. p. 476) to which we refer this court, states our position as to the *Sinclair* case. We there showed that the Court of Appeals was in error in its first opinion in believing that there was prior knowledge which made applicable the time honored doctrine of the *Sinclair* case that prior knowledge invalidates. In that case the patentee, Gessler, merely followed the instructions of a prior publication of Hanson.

The court summarized the differences between the present case and the *Sinclair* case as follows (R. p. 488):

> "Dreymann . . . did not merely play Gessler to some prior worker's Hanson. He combined the roles of Hanson and Gessler in that he not only discovered the essential characteristics which a laminating agent for paper ought to have to accomplish the purpose he had in mind, but he also found the agent."

Petitioner nowhere attempts to show wherein the Court of Appeals was in error.

THE PETITION AVOIDS THE SALIENT FACTS AND IS BASED ON A FALSE PREMISE.

The salient and controlling facts briefly outlined above are completely avoided in the petition. The petition would have it that Dreymann merely used a "better" wax, utilizing the "well known properties" of such wax, whereby there was a mere "substitution of materials, without more". Or, as stated (Pet. p. 10), "Dreymann's invention was only the substitution of one wax for another in an old combination".

This basic assumption of the petition is erroneous, as we have shown, and is contrary to the facts found by the Court of Appeals. The court found that Dreymann made important discoveries which were the touchstone to success.

The petition nowhere contends that the court's findings were in any way in error or that the court was not warranted in finding that the facts relied upon are indicative of invention.

Instead, the petition sets up a strawman of mere formal substitution, without more, and would thereby contend that the court erred as a matter of law in ruling that a mere formal substitution constitutes patentable invention. The court made no such ruling.

THE SUBSTITUTION OF MATERIALS CASES. THE ALLEGED CONFLICT OF LAW IS PURELY FICTITIOUS.

Petitioner's erroneous picture of the facts of the Dreymann invention is accompanid by a laborious effort to conjure up an alleged conflict of law between the First and Second Circuits on the one hand and the Third and Seventh Circuits on the other hand as to the rule of law relating to substitution of materials (Pet. p. 14).

This shows a complete misconception of the cases and of their bases. Uniformity cannot exist unless the facts in all the cases are the same. They are not.

Petitioner has selected a few cases which, on different

facts, reach opposite results and, moreover, has not cited the cases in the same circuits, which on their particular facts, reach other results.

As has been said by others, "invention is always a function of the particular situation, of the conditions which preceded and followed the appearance of the composition or machine". This is the point of view recognized by the circuits in question, as well as by this Court.

Substitution of materials may or may not involve invention, depending on the circumstances of the particular case, and there are no conflicting rules of law in the circuits in question or elsewhere.

In *Hotchkiss* v. *Greenwood,* 11 How. 248, Hotchkiss merely used porcelain instead of wood in a particular doorknob combination, where doorknobs of porcelain were old. The *Hotchkiss* case does not rule that a substitution cannot be invention, as this Court pointed out in *Smith* v. *Goodyear,* 93 U.S. 486, 494.

In *Hicks* v. *Kelsey,* 18 Wall. 670, Hicks, the patentee, was expected to know that iron is stronger and more durable than wood, and therefore would be useful where strengthening is desired, as in a wagon reach.

These classic cases are examples of what is generally termed mere formal substitution of materials, of which there are many cases, some of the leading ones in this Court being cited in the petition.

In such cases there is no invention because there is "no ingenuity" beyond that of the skilled man. For the same reason there is no invention in the mere double use of an old expedient, as in such cases as *Atlantic Works* v. *Brady,* 107 U.S. 192, *Cuno Corp.* v. *Automatic Corp.,* 314 U.S. 84, *Altoona Theatres* v. *Tri-Ergon Corp.,* 294 U.S. 477, and *Dow Chemical Co.* v. *Halliburton Oil Co.,* 324 U.S. 320.

We are in accord with the petition and the cases in condemning an effort to monopolize a mere formal substitution or double use.

Where the courts, as triers of fact, have found that the patentee has done more than apply familiar knowledge with no unexpected result, and has contributed to useful knowledge by the exercise of "more ingenuity . . . than the work of a mechanic skilled in the art", patentability has been found in substitution as in other cases.

In *Smith* v. *Goodyear,* 93 U.S. 486, this Court was satisfied from the facts of the case that "what Cummings accomplished was more than a substitution of one material for another; more than the exercise of mechanical judgment and taste" (p. 495). The petition finds no fault with this decision.

See also *Potts* v. *Creager,* 155 U.S. 597, 608, 609, cited with approval in *Goodyear Co.* v. *Ray-O-Vac Co.,* 321 U.S. 275, 279.

In *Celluloid Mfg. Co.* v. *Frederick Crane Chemical Co.,* 36 Fed. Rep. 110, Justice Bradley, who delivered the opinion in *Hicks* v. *Kelsey* (*supra*), sitting with the Circuit Court of New Jersey, after discussing the *Hotchkiss* and *Hicks* cases, said (p. 112):

> "There is no rule of law that the substitution of one material for another is not patentable. In processes of manufacture, and in compositions of matter, such a substitution often effects material changes in the result, either as to the product or the expense."*

The petition does not deny that an improvement which can be said to reside in substitution may involve invention.

In the present case, the Court of Appeals for the First

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* For a good statement see *Remington Rand* v. *Acme Co.,* 71 F. (2d) 628, 632 (C.C.A. 4th);

> "There is, however, no rule of law that the substitution of a new material for an old is not patentable. The question is always whether the alteration requires invention or merely the exercise of mechanical skill and judgment. The answer must be found in the light of the circumstances of the particular case. . . ."

Circuit did not rule that a mere substitution of materials is invention and there is no such rule of law in that circuit or in any other circuit, as far as we are aware. The court was satisfied on all the evidence that Dreymann had not merely substituted "one wax for another" but by the exercise of unusual skill had made a *new* discovery of value and importance.

Where that court has found that the patentee has merely applied existing knowledge as may be expected of the skilled man, it has consistently denied patentability (for more recent cases *Dorr Co.* v. *Yabucoa Sugar Co.*, 119 F. (2d) 521; *Nichols* v. *Sanborn Co.*, 124 F. (2d) 654; *Grosjean* v. *Panther-Panco*, 113 F. (2d) 252; *Mabey* v. *Howard*, 132 F. (2d) 40; *Bellavance* v. *Frank Morrow Co.*, 140 F. (2d) 419).

In the Second Circuit, there is no rule of law that a mere substitution of materials is invention. In *United Shoe* v. *E. H. Ferree Co.*, 64 F. (2d) 101, the Court, recognizing (p. 103) that "the facts of each case must determine" the issue, found the facts highly persuasive that the patentee had done something more than merely substitute a material for its known properties. He solved an old problem, the solution of which had evaded the art for years, by completely reversing the whole trend of the art with a revolutionary suggestion that was considered "impractical and impossible". There were facts beyond the mere substitution which the Court considered persuasive of unusual ingenuity and patentable invention.

Smokador Mfg. Co. v. *Tubular Products Co.*, 31 F. (2d) 255, involved something more than a substitution of glass for metal in the bottom of a cigar ash receptacle. The court (p. 256) defines the invention as comprising the substitution of glass "for a prior, and what we may justly regard as a more obvious, form of container, and to shield it from sight, except when the stand is turned up for examination". The protecting and shielding skirt was an element of the combination claim (see 27 F. (2d) 948, 949).

Where there is a mere formal substitution or judicious selection, utilizing known properties with expected results, the Court of Appeals of the Second Circuit is in accord with other circuits and with this Court, that no invention is involved although reaching an improved result. For more recent cases see *Aero Co.* v. *Beaver Co.*, 97 F. (2d) 363, 365; *Minton Mfg. Co.* v. *Continental Briar Pipe Co.*, 93 F. (2d) 271; *Johnson Metal Products Co.* v. *Lundell-Eckberg Mfg. Co.*, 98 F. (2d) 756, 758; *Condenser Corp.* v. *Davega-City Radio*, 108 F. (2d) 174; *Trubenizing Process Co.* v. *Jacobson*, 98 F. (2d) 899.

The Third and Seventh Circuit cases cited in the petition to show an alleged different rule of law are cases of the merest and most obvious substitution and nothing more.

In *Fowler* v. *Honorbilt Products*, 131 F. (2d) 153 (C.C.A. 3d), the patentee made a better upholstery padding by substituting sisal for cotton. The improvement was "due alone to the fact that the peculiar properties and characteristics of sisal rendered it superior for padding purposes in upholstery—a fact which had long been widely known and understood" (p. 155).

The Third Circuit has no rule of law in conflict with any rule of the First and Second Circuits. When the facts and circumstances show that the patentee has contributed to the sum of human knowledge, has gone beyond the mere intelligent selection of materials for their known qualities, there may be invention in substitution, depending on the facts.

In *Allen Filter Co.* v. *Star Metal Co.*, 40 F. (2d) 252, the Court of Appeals for the Third Circuit sustained the Mull patent for water cooler coils made of resilient metal instead of inert metal, as in the prior art. The court recognized that, "It is, of course, too well settled to be now open to question that the mere substitution of one material for another in an old article is not invention, notwithstanding the substituted material may be better for the purpose."

But the special facts of the case showed that the substitution was not obvious, that the use of resilient metal was not the result of judgment in the selection of materials, and that "its adaptability for the purpose was not obvious." Petition for certiorari was denied (282 U.S. 848).

For a more recent case, where the Court of Appeals for the Third Circuit sustained a patent involving substitution of material, see *Gilbert Spruance Co.* v. *Ellis-Foster Co.*, 114 F. (2d) 771. In this case the patentee substituted a certain synthetic resin for other resins in a lacquer compound, with greatly improved results. As the court said (p. 773) in words applicable to Dreymann's contribution, "he seized upon a thing which was available to all but which had been grasped by none, and was able to fit it into a new place, to create an original and useful result. . . . The case at bar presents an almost classic example of new use."

In *Lafferty Mfg. Co.* v. *Acme Ry. Signal & Mfg. Co.*, 138 Fed. Rep. 729 (C.C.A. 7th), there were no facts showing invention. Paper was substituted for tin in a cap of a torpedo. There was no solution of a problem and no advance in the art. The only merit of the change was a decrease in cost, and the court considered that under the facts of the case, "The mere fact that the cost of the article to the public is thereby cheapened does not give to the substitution of one material for another the quality of patentable invention".

There is no conflict here with the decision in the present case.

Angier v. *Nehring Elec. Works*, 45 F. (2d) 354 (C.C.A. 7th), involved the use of crepe paper for wrapping tires. The use of crepe paper for wrapping purposes was old and familiar practice. As the court said, "Every element of the patented 'package' is venerably old." This was a clear case of the merest double use, and there were no facts whatever to sustain invention.

This case is not in conflict with the present decision.

Where the patentee discovered attributes of a known alloy in certain proportions, applicable and useful to a particular use, the Court of Appeals for the Seventh Circuit did not hesitate to find patentability in the substitution of such alloy as an electric resistance element (*General Electric Co.* v. *Hoskins Mfg. Co.*, 224 Fed. Rep. 464).

There is no conflict in rules of law, as alleged. The divergent results, stressed by petitioner, arise solely from divergent facts.

The decision of the Circuit Court of Appeals in the present case is not in conflict with any of the decisions cited, including those of this Court. In the present case and in all the cases cited the decision on the question of invention is necessarily and intimately bound up with and dependent upon the facts in the particular case.

The alleged conflict in rule of law is purely fictitious.

DREYMANN'S INVENTION SATISFIES PETITIONER'S OWN TEST.

The petition vacillates between urging on the one hand (Point III, Pet. p. 19) that no patent involving substitution should be sustained and elsewhere conceding that such patents may be valid and then undertakes to reduce the test of invention where the improvement can be said to reside in a substitution of materials, to a formula of words or to abstract general definition, whereby the fact of invention becomes a matter of terminology. It is petitioner's position (Pet. p. 15) that as a matter of law, if the improvement can be said to comprise a substitution of materials, there is no invention, unless there is a "new contrivance, relationship of elements, or new process".

While we question that there are any such absolutes, or that such phrases or labels are useful as abstract defini-

tions,* nevertheless, on petitioner's own ground, Dreymann's invention is not a mere substitution of materials, but fully satisfies the alleged requirement of the phrase "new contrivance" or "new relationship of elements". The very essence of Dreymann's invention resides in a new and highly useful "contrivance". We quote, *supra,* p. 9, the finding of the Court of Appeals, nowhere challenged by petitioner, that Dreymann's teaching, like that of Cummings in *Smith* v. *Goodyear,* resulted in a "new product differing from all that preceded it, not merely in degree . . . but *differing in kind, having new uses and properties*". And, moreover, this new result or "contrivance" is due to a "new relationship of elements" as above described, arising from Dreymann's discovery.

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* See the impressive statement of Judge Learned Hand in *Van Heusen Products* v. *Earle & Wilson,* 300 Fed. Rep. 922, 929. As to substitution of one material for another, he observed:

> "I do not conceive that the law has ever laid down any such absolute rule on this subject, or any other absolutes for that matter. . . . Is it not clear that the quality of a man's inventiveness must be tested by reconstituting the situation as it was in the light of the preceding history of the art? There is no *vade mecum* for such inquiries. Our unknown ancestor, who first substituted iron for bronze in the head of an ax, was the bright exemplar of all inventors to come. . . . In this subject the standard escapes any abstract definition, because the end in view needs nicer adaptations, as in the cases of due care or notice."

This Court said in *McClain* v. *Ortmayer,* 141 U.S. 419, 427:

> "Whether the variation relied upon in a particular case is anything more than ordinary mechanical skill is a question which cannot be answered by applying the test of any general definition."

MISCELLANEOUS COMMENT.

We see no relevance to petitioner's point III (p. 19). In *Bassick* v. *Hollingshead,* 298 U.S. 415, this Court held that as the combination of pump, connecting conduit, coupler, and fitting was old, Gulborg could not by inventing a new type of fitting reclaim the old combination *per se,* but must be confined to the new fitting itself. The Court did not hold that a *new combination* cannot be patentable even though all the elements be individually old. We see no pertinency in this decision, and if petitioner's suggestion in this regard should be adopted, as a new rule of law, invention could never be predicated on a new discovery, however revolutionary, that a particular material can be adapted to a new use for the production of a vastly superior product, however unexpected the result.

As to the standards of invention, the Court of Appeals of the First Circuit has specifically recognized the "far higher" standards now prevailing (see *Brown & Sharpe* v. *Kar,* 154 F. (2d) 48, 51–52, handed down while the decision on rehearing in the present case was under advisement).

Petitioner asserts (p. 3) that it merely purchased some amorphous petroleum wax on the market and used it. The petition for rehearing (R. pp. 480–483), sets forth some of the facts of records as to petitioner's infringement *following* extensive commercial use by respondent and the issue of the Dreymann patent. Petitioner does not use commercial wax or any run of the mill wax but a special brew which accounts for its special characteristics and qualities (p. 326). Petitioner, unable to use a commercial wax, blends with commercial wax some petrolatum (R. pp. 300–301) which contains a substantial amount of resinous colloid and thereby builds up the necessary colloidal content. The resulting product contains 25% of resinous colloid (R. p. 471). This special blend was considered a "trade secret" (R. p.

302) and, by agreement, was sold by the blender to no one else for laminating (R. p. 113).

As to the new Dean affidavit (Pet. p. 23), the accuracy of which has not being tested, it does not appear how much of his estimated amount of amorphous petroleum wax is to be doctored for use in making laminated products of the Dreymann invention. If all or any substantial percentage is to be so used by respondent and its licensees or in infringement, Dreymann has indeed created a new and very large industry. The petrolatum base of amorphous petroleum wax has been long used as "Vaseline" (R. p. 92), and the wax by-product, until recently, for the most part has been burned as a waste product (R. pp. 258; 469). Dreymann has apparently succeeded in transforming millions of pounds of waste product to a valuable use.

The effort to use the food shortage has been referred to, *supra,* p. 3. Nor do we believe, as the petition (p. 21) seems to urge, that because Dreymann's invention is useful in packaging foods petitioner should be free to appropriate it, regardless of the patent law enacted by Congress, without taking a license as others have done.

CONCLUSION.

We submit the grounds set forth for further review by this Court do not bear scrutiny. The Circuit Court of Appeals has committed no reversible error, has applied no law at variance with the law of this Court or that of other circuits, and there is no conflict of law in different circuits to be resolved.

There is here no reason for review that cannot be advanced by any defeated party in a patent case who is not satisfied with the decision of the lower court on the issue of patentable invention, a contested issue in substantially every patent suit.

Respectfully submitted,

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APPENDIX.

THE PRIOR PATENTS.

Johnson of 1880 (No. 229,045, R. p. 439) proposed a laminated wrapping paper using an intercollated layer of paste made of a compound of caoutchouc and paraffine. Paraffine is a familiar wax, long used for waterproof coating and proposed for lamination. But when it solidifies it is brittle (R. pp. 184; 277), and when applied in a molten state, as for lamination, will absorb into the paper or cardboard like ink into a blotter and moreover is not sufficiently adhesive (*supra*, p. 5).

Beecher, No. 1,936,375 (R. p. 448) specified paraffine "or other mineral, animal or vegetable waxes" as a laminating agent, between sheets of glassine paper (R. pp. 266; 467), a special non-absorbent paper which Beecher used to prevent absorption or impregnation of "ordinary paper", which he realized would become impregnated with his wax (R. p. 449, line 53). Beecher saw no way of preventing penetration or absorption of the wax into the paper except by using glassine paper. Glassine is "expensive . . . and very thin . . . not suitable for boxes, only for wrapping" potato chips and the like (R. p. 467). It does not appear that Beecher was ever used.

Fietsch, No. 1,269,918 of 1910 (R. p. 456), much relied upon by petitioner, as early as 1910 was trying to make some use of petroleum residuum as a laminating moisture resistant agent for paper boxes. His proposal was to use a laminating layer of "oxidized petroleum residuum" formed by blasting such residuum "with air at high temperature". As the testimony showed (R. p. 280) and as the Court of Appeals found (R. p. 467), Fietsch's process produced "air blown asphalt". The petition (p. 10) is misleading as to Fietsch.

The other prior art patents cited by the petition are of no significance.*

* Hoch (R. p. 443) was concerned with impregnating an electrical condenser material for waterproofing. McLaren (R. p. 445) had no concern with laminating and proposed no use for his material, and no one ventured to testify that it could be used for lamination. McLaren was apparently concerned with the wax for its then established common uses, emulsifying, sizing and impregnating (R. p. 83). Rose (R. p. 453) was concerned with coating and impregnating. Pearsall (R. p. 451) was concerned with a "non-tacky" coating.

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Supreme Court, U.S.
FILED
OCT 14 1948

In the

Supreme Court of the United States.

OCTOBER TERM, 1948.

No. 387.

RUSSELL BOX COMPANY,
Petitioner,

v.

GRANT PAPER BOX COMPANY,
Respondent.

MOTION
AND
BRIEF IN SUPPORT OF ALLOWANCE OF PETITION
BY RUSSELL BOXFORD COMPANY TO FILE BRIEF AS AMICUS CURIAE.

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L. H. LANE COMPANY, LAW PRINTERS, 221 HIGH ST., BOSTON, MASS.

In the

Supreme Court of the United States.

OCTOBER TERM, 1946.

No. 297.

RUSSELL BOX COMPANY, PETITIONER,

v.

GRANT PAPER BOX COMPANY, RESPONDENT.

MOTION BY ENSIGN BICKFORD COMPANY TO FILE BRIEF AS AMICUS CURIAE.

May it please the Court:

Ensign Bickford Company, a corporation of Connecticut and doing business at Simsbury, Connecticut, moves for leave, as *amicus curiae,* to file the Brief hereto attached in support of the Petition for Certiorari in the above entitled case.

In support of said Motion, Ensign Bickford Company represents as follows: It is the owner of Letters Patent to Pearsall, No. 1,968,907, on "Composition of Matter", dated August 7, 1934 (R. p. 451). The composition there patented is, in part, amorphous petroleum wax mixed with ester-gum. The decision in the case at bar is of importance to this Company since the Company has granted a license to a manufacturer to use this compound with the right to issue sublicenses to others for laminating paper boxes.

The Pearsall patent mentioned covers a compounded wax which, if used for laminating the walls of paper boxes, is within claim 3 of the patent in suit:

Claim 3. "A container wall for the packaging of material including a sheet or film *composed substantially of an amorphous petroleum wax* of an apparent melting-point of 120°–170° F., carrying a suspended colloid, and two sheets of fibrous material, the sheet or film of said wax intercalated between the sheets of fibrous material and constituting a film of adhesive uniting the whole."[1]

This claim was held valid by the Court of Appeals. The decision of the Court of Appeals therefore prevents the use of the Pearsall compounded wax by box manufacturers who are or may be licensed to use it for lamination, though the Pearsall patent was applied for August 5, 1931, nearly three years prior to the filing of the application for the patent in suit. Ensign Bickford Company accordingly has a direct pecuniary interest of importance.

Furthermore, the public, on expiration of the Pearsall patent will be prevented from using his invention for a particular purpose for some two and one-half years. Such a result is condemned as "counter to the policy and purpose of the patent laws" in the recent decision of this Court in *Scott Paper Co.* v. *Marcalus Co.*, 326 U.S. 249.

Copies of this motion, together with the brief attached hereto, have been submitted to all parties in the case, as provided by Rule 27 (9) of the Rules of this Court. The written consent of the petitioner was obtained, as is indicated below, but the respondent refused to give its consent.

WHEREFORE, Ensign-Bickford Company prays this Honorable Court that its foregoing motion may be allowed and that the brief attached hereto may be filed.

ENSIGN BICKFORD COMPANY,
by its Attorney,
O. WALKER TAYLOR,
31 Milk Street, Boston, Massachusetts.

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[1] Italics ours throughout.

Russell Box Company, petitioner, hereby acknowledges receipt of copy of the foregoing motion and the brief attached thereto, and consents to the filing of brief *amicus curiae* by Ensign-Bickford Company.

By its Attorney,

HERBERT A. BAKER,
53 State Street, Boston, Massachusetts.

BRIEF IN SUPPORT OF ALLOWANCE OF PETITION.

SUMMARY OF ARGUMENT.

The Argument may be summarized as follows:

(1) Claim 3 of the patent in suit is invalid as construed by the Court of Appeals because it is confined to wax having a "*substantial* quantity of resinous colloidal matter". There is no utility in the wax unless there is "a substantial colloidal content" (R. p. 473). It is therefore an indefinite claim and invalid.

There is nothing in the specification or the claim or the finding and rulings of the Court of Appeals which defines any limitation of the claim, although "amorphous wax without at least a substantial colloidal content was unsuitable" for the patentee's purpose (R. p. 473).

(2) The patent, if applied to monopolize manufacture of container walls laminated with waxes containing only natural colloids, gives Dreymann a monopoly on an invention not made by him, but made by a salesman of an oil company.

ARGUMENT.

1. The Court of Appeals erred in validating a claim which does not "inform the public . . . of the limits of the monopoly asserted" and where "the variant . . . is not clearly defined". *General Electric Co.* v. *Wabash Co.*, 304 U.S. 364; *United Carbon Co.* v. *Binney & Smith Co.*, 317 U.S. 228.

A. The Court of Appeals found that a "relatively pure amorphous wax" R. p. 470 (*i.e.*, a "wax with only 5 per cent of colloidal content" Pet. for Rehearing, R. p. 479), was not suitable and that "the patent as a whole is not for amorphous petroleum wax in general as a laminating agent for paper, but is only for such a wax for that purpose in combination with a *substantial* quantity of resinous colloidal matter" (R. p. 473).

Both parties in practice use a compound containing 25 per cent resinous colloidal content (R. p. 471). The Court of Appeals found infringement (R. p. 489).

We submit, that where the utility of the invention rests on the use of a "substantial" quantity of colloidal material, and the claim says nothing of the proportions required for utility, it is condemned by the rule of this Court laid down in *General Electric Co.* v. *Wabash Co.*, 304 U.S. 364, 369. There, referring to the words "substantially" and "comparatively large grains", this Court said: "The claim is invalid on its face. It fails to make a disclosure sufficiently definite . . ." (R. p. 368). "The inventor must inform the public during the life of the patent of the limits of the monopoly asserted; so that it may be known which features may safely be used or manufactured without a license and which may not. The claims 'measure the invention'. Patentees may reasonably anticipate that claimed inventions, improvements and discoveries, turning on points so refined as the granular structure of products, require *precise descriptions* of the new characteristic for which protection is sought. In a limited field the variant must be clearly defined".

And the words "substantially pure" among others were condemned as lacking in clarity in *United Carbon Co.* v. *Binney & Smith Co.*, 317 U.S. 228, where the Court said: "The statutory requirement of particularity and distinctness in claims is met only when they clearly distinguish what is claimed from what went before in the art, and clearly circumscribe what is foreclosed from future enterprise" (p. 236). "An invention must be capable of accurate definition, and it must be accurately defined to be patentable" (p. 237).*

B. The Court of Appeals found that a relatively pure wax having only 5 per cent colloidal content would not do (*supra*, p. 5). Such a wax, however, comes within the claim. No

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* *Cf., Universal Oil Co.* v. *Globe Oil Co.*, 322 U.S. 471–484.

line is drawn by the Court to indicate whether 10 per cent colloidal content would infringe, nor 15 per cent. No new process of lamination is described and *non constat* that a careful and skillful use of known processes using "relatively pure wax" would not produce the container wall desired by the industry. In fact, it appears that 5 per cent ester-gum with 95 per cent crude wax will laminate in the laboratory and produce a satisfactory product (R. p. 240, Qs. 58–64).

The Pearsall patent No. 1,968,907 (R. p. 451), covers a range of proportions from 5 per cent to 95 per cent ester-gum in amorphous petroleum wax. Manifestly, under the Court's decision, the use of the Pearsall compound by licensees under the patent is an infringement if the proportion—20 to 25 per cent ester-gum—is used. Is it an infringement if the proportion of ester-gum is only 5 per cent? Would 10 per cent infringe, or 15 per cent?

Here, then, is the "zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims" condemned by Mr. Justice Jackson in the *United Carbon Case* (p. 236).

We submit that the Supreme Court should grant the petition for certiorari in the case at bar to correct such a far reaching error as may be perpetuated by the decision here criticized.

2. Dreymann is not the discoverer of the use of ordinary commercial wax as a laminating agent, but merely bought a wax suggested by a salesman, and then used it.

Dreymann, the patentee, originally used a commercial wax of 165° F. melting point and that is the wax of his patent (R. p. 132). He found, however, that the wax with a melting point of 155°, used "pure", (Q. 28, R. p. 342) stuck far better and worked successfully (XQ. 179, R. 144). He used the 155° product on the recommendation of a salesman.

Grant, president of the plaintiff respondent, told how the

patentee came to use the 155° melting point product. After his visits to machine companies to get a machine to laminate two sheets of paper together (Q. 25, R. p. 35) and getting a machine in May, 1934, he went with Dreymann to the Socony Vacuum Oil Company in June, 1934 (Q. 29). There he told a sales manager "what we wanted to buy" (Q. 31, p. 35). The salesman said "the wax that we wanted had about a 155 melting point". "I told him (we needed) quite a lot . . . about 600,000 pounds for about a year" (Q. 32, p. 37). Commercial production with this wax was begun in July. No rosin or resin was added in filling orders from July to November, 1934 (XQs. 151, 152, R. pp. 49, 50).

The patent in suit itself implies that the wax of a melting point of 165° is not adequate since it is said (R. p. 360), "The adhesive quality of substances 1 (paraffin) and 2 (paraffin and ester-gum) is practically nil; substance 3 (petroleum wax melting point 165° F.) sticks better. Substances 4, 5, and 6 (wax adulterated with foreign colloids) are adequate for my purpose" (Pat. pp. 2, 11, 27–30, R. p. 360). It is clear that only after the application was filed, Dreymann was told of a satisfactory commercial wax.

Such a solution of a problem by using a commercial product developed by a manufacturer finds an exact parallel in *Collar Company* v. *Van Dusen*, 23 Wallace 530. The patentee there had learned from his experiments that he wanted paper of the qualities described in the patent and after much persistent endeavor such paper was eventually produced by the manufacturer to whom he applied (23 Wall. 562). But he was not the inventor. The Court said ". . . the patentee is not entitled to a patent for the collars as a new manufacture, for several reasons: (1) Because he did not invent either the product or the process by which the product is obtained . . ." Even though the patentee "was the first person to conceive the idea that paper possessing the desired qualities was desirable for the purpose . . ." he was still held not to be the inventor of anything.

Directly opposite to this case, on similar facts, is the finding in this case, where contrary to the *Van Dusen* case the Court of Appeals found invention. Here, the Court said Dreymann "discovered the essential characteristics which a laminating agent for paper ought to have" and "found the agent . . . (a commercially available compound having known characteristics) . . . Nevertheless the value of those characteristics for bonding paper to produce a flexible . . . and moisture vapor proof material . . . was unknown before Dreymann, and therein lies the distinction between the case at bar and the *Sinclair* case"* (R. p. 488).

We submit that respondent is therefore asserting an unjustifiable monopoly and that the Court of Appeals for the First Circuit was wrong in awarding it.

CONCLUSION.

We submit that the Petition for Certiorari should be granted.

ENSIGN BICKFORD COMPANY,
by its Attorney,
O. WALKER TAYLOR.

31 Milk St., Boston, Mass.

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* *Sinclair & Carroll Co., Inc.*, v. *Interchemical Corp.*, 325 U.S. 327.